

REMARKS

The claims now pending in the application are Claims 1 to 18. Claim 1 is the only independent claim. Claims 1 to 6, 12 and 15 have been amended herein.

In the Official Action dated February 11, 2004, Claims 1 to 7, 12 and 18 were rejected under 35 U.S.C. § 102(b), as anticipated by U.S. Patent No. 4,873,572 (Miyazaki), Claim 10 was rejected under 35 U.S.C. § 103(a), as unpatentable over the Miyazaki '572 patent, and Claims 8, 9, 11, 13, 14, 16 and 17 variously were rejected under 35 U.S.C. § 103(a), as unpatentable over the Miyazaki '572 patent, further in view of one of PCT Patent Document WO 93/11631 (Brian), U.S. Patent No. 6,157,420 (Nakanishi) and U.S. Patent No. 5,565,914 (Motta). Reconsideration and withdrawal of the rejections respectfully are requested in view of the above amendments and the following remarks.

Initially, Applicant gratefully acknowledges the Examiner's indication that the application contains allowable subject matter, and that Claim 15 is allowable over the prior art.

The rejections of the claims over the cited art respectfully are traversed. Nevertheless, without conceding the propriety of the rejections, Claims 1 to 6, 12 and 15 have been amended herein more clearly to recite various novel features of the present invention, with particular attention to the Examiner's comments. Support for the proposed amendments may be found in the original application. No new matter has been added.

The present invention relates to a novel image pickup apparatus. In one aspect, as now recited in independent Claim 1, the image pickup apparatus comprises first and second image pickup portions for receiving at least a first wavelength component of object light and a second wavelength component of the object light different from the first wavelength component, respectively, and first and second optical systems for guiding the first and second wavelength components of the object light to be received by the first and second image pickup portions to the first and second image pickup portions, respectively,

via different optical paths. The first and second optical systems are formed to have respective shapes so that the focal length of the first optical system with regard to the first wavelength component is equal to the focal length of the second optical system with regard to the second wavelength component. As discussed in greater detail, e.g., at page 20, line 10 to page 22, line 8 of the specification, this aspect of the present invention provides a significant improvement over conventional image pickup apparatuses in that, by compositing these image signals, a color image with satisfactory correction of chromatic aberration can be obtained by a simple optical structure.

Applicant submits that the prior art fails to anticipate the present invention. Moreover, Applicant submits that there are differences between the subject matter sought to be patented and the prior art, such that the subject matter taken as a whole would not have been obvious to one of ordinary skill in the art at the time the invention was made.

The Miyazaki '572 patent relates to an electronic endoscope apparatus, and discloses an electronic endoscope apparatus comprising an elongating insertable part, to image forming optical systems provided in the tip part of the insertable part, and an integrated imaging device provided in the tip part of the insertable part and having two imaging regions in which object images are formed by two image forming optical systems. However, Applicant submits that the Miyazaki '572 patent fails to disclose or suggest at least the above-described features of the present invention. In particular, Applicant submits that the Miyazaki '572 patent is silent with respect to the focal length(s) of composited optical systems of an image pickup apparatus. In this regard, Applicant notes the Examiner's reference to Column 12, lines 18 to 42 of the Miyazaki '572 patent, relating to "focal length" features. However, Applicant submits that this description merely teaches that the Miyazaki '572 patent structure includes two optical systems that are arranged symmetrically; nowhere is the Miyazaki '572 patent understood to teach that the optical systems (lenses) are formed to have specific shapes, respectively, so that the focal length of

the first optical system with regard to a first wavelength is equal to the focal length of a second optical system with regard to a second wavelength component, as disclosed and claimed in the present application.

Applicant notes the Examiner's concession that the Miyazaki '572 patent lacks a teaching wherein each of the first and second optical systems comprises a single lens provided with an infrared radiation-cutting filter, but taking Official Notice that it is well known in the art to use cut-off infrared rays in a lens. Without conceding the propriety of the Examiner's characterizations, Applicant submits that knowledge of such an infrared cutting filter fails to add anything to the Miyazaki '572 patent that would make obvious the claimed invention.

Applicant notes the Examiner's concession that the Miyazaki '572 patent fails to teach the feature wherein first and second lenses are made of photochromic glass; the Brian WO '631 reference is cited for its teaching of this feature. Without conceding the propriety of the Examiner's characterizations, Applicant submits that the Brian WO '631 reference fails to disclose or suggest the above-described features of the present invention. Nor is the Brian WO '631 reference believed to add anything to the Miyazaki '572 patent that would make obvious the claimed invention.

Applicant notes the Examiner's concession that the Miyazaki '572 patent fails to disclose the feature of first and second optical systems comprising a color purity correction filter; the Nakanishi '420 patent is cited for its disclosure of such feature. Without conceding the propriety of the Examiner's characterizations, Applicant submits that the Nakanishi '420 patent fails to disclose or suggest at least the above-described features of the present invention. Nor is the Nakanishi '420 patent believed to add anything to the Miyazaki '572 patent that would make obvious the claimed invention.

Applicant notes the Examiner's concession that the Miyazaki '572 patent fails to disclose the feature wherein a filter whose transmission factor of the filter becomes

smaller as the optical axis becomes longer; the Motta '914 patent is cited for its disclosure of a filtering function in which the transmission factor (sensitivity) becomes smaller as the distance from the optical axis (Y) becomes longer (Figure 8A; Column 5, lines 30 to 41). Without conceding the propriety of the Examiner's characterizations, Applicant submits that the Motta '914 patent fails to disclose or suggest at least the above-described features of the present invention. Nor is the Motta '914 patent believed to add anything to the Miyazaki '572 patent that would make obvious the claimed invention.

For the above reasons, Applicant submits that independent Claim 1 is allowable over the cited art.

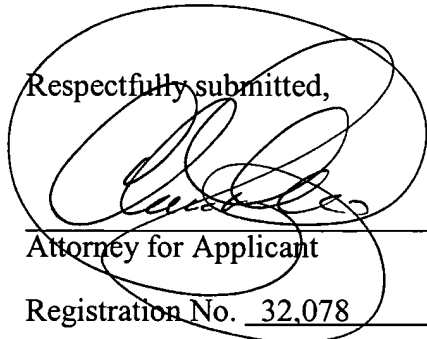
Claims 2 to 18 depend from Claim 1, and are believed allowable for the same reasons. Moreover, each of these dependent claims recites additional features in combination with the features of independent Claim 1, and is believed allowable in its own right. Individual consideration of the dependent claims respectfully is requested.

By separate paper filed concurrently herewith, Applicant has submitted an Information Disclosure Statement identifying additional information that may be deemed pertinent to the subject application because it was cited in connection with a copending application directed to similar subject matter. Applicant believes the present claims are allowable thereover.

Applicant believes that the present Amendment is responsive to each of the points raised by the Examiner in the Official Action, and submits that the application is in allowable form. Favorable consideration of the claims and passage to issue of the present application at the Examiner's earliest convenience earnestly are solicited.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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